

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of claims:

1. (Currently Amended) A method ~~Method~~ of controlling the process conditions, in particular the temperature, in a reactor (1) of a plant into which, in particular, granular material is introduced and transported through a conveying line (14) to the reactor (1), ~~characterized in that~~ wherein the material quantity transported in the conveying line (14) is being determined and is being used as control variable and/or disturbance variable for controlling the process conditions, in particular the temperature, wherein the material quantity of the material fed to the reactor is determined by measuring the pressure and/or the pressure loss in a conveying line upstream of the reactor, in particular in an airlift.

2. (Currently Amended) Method according to claim 1, ~~characterized in that~~ wherein the material quantity in the conveying line (14) is controlled to a predeterminable value.

3. (Currently Amended) Method according to claim 2, ~~characterized in that~~ wherein the material quantity in the conveying line (14) is controlled by a conveyor (27, 33), with which the material is introduced into the plant, in particular by varying the rotational speed of a material-charging screw (30) and/or by a weighfeeder (34) upstream of the material-charging screw (30).

4. (Currently Amended) Method according to ~~one of the preceding claims, characterized in that~~ claim 1, wherein the heat supply to the reactor (1) depends on the material quantity determined.

5. (Currently Amended) Method according to claim 4, ~~characterized in that wherein~~ the heat supply is effected by burning fuel in the reactor (1) and the fuel feed is controlled for controlling the heat supply.

6. (Currently Amended) Method according to ~~one of claims 4 or 5,~~ characterized in that claim 4, wherein the reactor temperature is measured in the reactor (1) and the heat supply additionally depends on the reactor temperature determined.

7. (Currently Amended) Method according to ~~one of claims 4 to 6,~~ characterized in that claim 4, wherein the time from the determination of the material quantity until the feeding into the reactor (1) is taken into account in the control of the heat supply.

8. (Currently Amended) Method according to ~~one of the preceding claims, characterized in that~~ claim 4, wherein a material discharge, for example via a bypass line (24), between the determination of the material quantity and the feeding into the reactor (1) is determined if need be and is taken into account in the control in particular of the material quantity and/or of the heat supply.

9. (Currently Amended) Method according to ~~one of the preceding claims, characterized in that~~ claim 4, wherein the material is dried and/or preheated before the determination of the material quantity in the conveying line (14).

10. (canceled)

11. (Currently Amended) Method according to ~~one of the preceding claims, characterized in that~~ claim 4, wherein a gas/solid suspension forms in the reactor (1), for example as a circulating fluidized bed.

12. (Currently Amended) Plant for the heat treatment of material fed to a reactor (1), in particular for carrying out the method according to ~~one of Claims 1 to 11,~~ claim 1, wherein having a conveying line (14) for the transport of granular material to the

reactor (1) and having at least one control (5, 31), and a measuring device (12) which is connected to the control (5, 31) and is intended for determining the material quantity of the material transported in the conveying line (14) to the reactor (1), wherein the conveying line is a fluid-pressure conveying line, in particular a preferably perpendicularly arranged rising line of an airlift.

13. (canceled)

14. (Currently Amended) Plant according to claim 12 ~~or 13~~, ~~characterized in that~~ wherein the measuring device (12) is a differential-pressure measuring device for measuring the differential pressure over the conveying line (14).

15. (Currently Amended) Plant according to ~~one of claims 12 to 14~~, ~~characterized in that~~ claim 12, wherein the control is a temperature control (5) and/or a material-charge control (31).

16. (Currently Amended) Plant according to claim 15, ~~characterized in that~~ wherein a temperature sensor (8) connected to the temperature control (5) is arranged in the reactor (1).

17. (Currently Amended) Plant according to claim 15 ~~or 16~~, ~~characterized in that~~ wherein the temperature control (5) has a control element (6) for controlling a fuel mass flow, directed to the reactor (1) for the combustion, on the basis of the determined material quantity and/or the measured reactor temperature.

18. (Currently Amended) Plant according to ~~one of claims 15 to 17~~, ~~characterized by~~ claim 15, wherein a conveyor (27, 33) ~~which~~ is connected to the material-charge control (31) and is intended for the controlled introduction of material into the plant, so that the material quantity in the conveying line (14) can be set to a predeterminable value.

19. (Currently Amended) Plant according to ~~one of claims 12 to 18,~~
~~characterized by~~ claim 12, wherein at least one drying device ~~(18, 26)~~ is upstream of and/or
downstream of the conveying line ~~(14)~~.